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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,502	03/30/2004	Nicholas C. Nicolaides	MOR-0277	5311

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EXAMINER	
POPA, ILEANA	

ART UNIT	PAPER NUMBER
1633	

DATE MAILED: 11/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/813,502	NICOLAIDES ET AL.	
	Examiner	Art Unit	
	Ileana Popa	1633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 70-77 is/are pending in the application.

4a) Of the above claim(s) 1-69 is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 70-77 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 30 March 2004 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Applicants' amendment filed on 02/25/2004 is acknowledged. Claims 1-69 have been cancelled. New claims 70-77 have been added. No new matter was introduced by this amendment.

Claims 70-77 are pending.

Note: Change in Art Unit and SPE

The examiner has been reassign to Art Unit 1633. Therefore, future correspondence should reflect such changes. The information regarding the SPE and Art Unit is at the end of the Action.

Double Patenting

2. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

3. A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Claims 70 and 72-75 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-4 and 8 of prior U.S. Patent No. Patent No. 6,737,268 B1. This is a double patenting rejection.

Claims 70 and 72-75 of the instant application and claims 1-4 and 8 of prior U.S. Patent No. Patent No. 6,737,268 B1 recite: a method of making a therapeutically hypermutated immunogen, comprising introducing into a cell that expresses a gene encoding a preselected immunogen *in vitro* a polynucleotide comprising a dominant negative allele of a mismatch repair gene, wherein said dominant negative allele is a truncation mutant of a PMS2, and selecting the cells that comprise a mutation in the gene encoding the preselected immunogen. The PMS2 mismatch repair gene is human PMS2, the allele comprises a truncation mutation at codon 134 or the truncation mutation is a thymidine at nucleotide 424 of wild-type PMS2, and introduction of said polynucleotide is in the presence of at least one DNA mutagen. The patented claims recite 1-4 and 8 of prior U.S. Patent No. Patent No. 6,737,268 B1

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., In re Berg, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); In re Goodman, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); In re Longi, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); In re Van Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 70, 71, 76, and 77 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 5 of U.S. Patent No. 6,737,268 B1. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims are obvious variants.

The instant claims are drawn to (i) a method of making a therapeutically hypermutated immunogen, comprising introducing into a cell that expresses a gene encoding a pre-selected immunogen *in vitro* a polynucleotide comprising a dominant negative allele of a mismatch repair gene, wherein said dominant negative allele is a truncation mutant of a PMS2, and selecting the cells that comprise a mutation in the gene encoding the pre-selected immunogen, (ii) expressing a polynucleotide sequence of the mutated gene encoding the pre-selected immunogen in a genetically stable cell, (iii) a homogenous population of cells produced by the method above, wherein the hypermutable cells are selected based on the determination that the polynucleotide encoding the preselected immunogen comprises a mutation as compared to the polynucleotide of a parental cell prior to introduction of the dominant negative allele of a PMS2 mismatch repair gene. The instant claims embrace the following embodiments: a method of making a cell that produces a pre-selected therapeutically hypermutated immunogen, expressing the mutated gene encoding the pre-selected immunogen in a genetically stable cell, and selecting cells that comprise the mutation in the gene encoding the pre-selected immunogen to obtain a homogenous culture of cells. The

patented claims recite a method of making a therapeutically hypermutated immunogen, comprising introducing into a cell that expresses a gene encoding a pre-selected immunogen *in vitro* a polynucleotide comprising a dominant negative allele of a mismatch repair gene, wherein said dominant negative allele is a truncation mutant of a PMS2, and selecting the cells that comprise a mutation in the gene encoding the pre-selected immunogen (claim 1), and a homogenous culture of hypermutable cells obtained by selecting the cells in which the pre-selected immunogen comprises a mutation as compared to the parental cell prior to introduction of the dominant negative allele of a PMS2 mismatch repair gene (claim 5).

With respect to the limitation of "expressing a polynucleotide sequence of said mutated gene encoding for said preselected immunogen in a genetically stable cell", as recited in claim 71, the specification of the U. S. Patent No. 6,737,268 B1 discloses that the cells used by the method of producing a therapeutically hypermutated immunogen are MMR proficient, i.e., genetically stable (page 28, column 2, Example 1).

Thus, the patented claim 1 and 5 anticipate claims 70, 71, 76, and 77 of the instant application. Since the claims of the U. S. Patent No. 6,737,268 B1 embrace all the limitations of the instant claims, the patent claims and the application claims are obvious variants of each another.

5. No claim is allowed. Claims 70-77 are free of prior art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ileana Popa whose telephone number is 571-272-5546. The examiner can normally be reached on 9:00 am-5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Nguyen can be reached on 571-272-0731. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ileana Popa

DAVE TRONG NGUYEN
SUPERVISORY PATENT EXAMINER